Request for Information on the NIH Plan to Enhance Public Access to the Results of NIH-Supported Research

April 24, 2023

Headline summary

We welcome the chance to respond to this important request for information from the National Institutes of Health (NIH). The Fully OA Publishers group currently comprises nine publishers dedicated to Open Access, disseminating high-quality research and data to the broadest possible public audience. A significant portion of the science we publish is Federally Funded, and all of it is peer-reviewed, globally shared and free to read. This submission comes from the 3 Fully OA Group Publishers referenced at the end of the document, although we are also aware other members of the Fully OA Group have submitted replies directly to NIH as well.

Our shared mission is to make all science open – so that we can collaborate better and innovate faster, for fairer and more equitable outcomes in all parts of society. That is a key social purpose of our businesses.

So, we fully support the August 2022 OSTP (Office of Science and Technology Policy) guidelines. We think the NIH has posed critical questions in this request for information, not least about the findability and transparency of research.

As a group of fully OA publishers, we have made hundreds of thousands of peer-reviewed articles available online immediately, without embargo. Our starting point – and end point – is ease of discovery.

In simple terms, an article that cannot be found, cannot be shared, and cannot be cited, clearly cannot spur collaboration and breakthrough. Publishing in a Gold OA journal unlocks discoverability. The articles and underlying data are transferred to a repository such as PubMed Central or stored in commercial or other non-profit databases. The metadata come in XML files and other machine-readable formats to meet FAIR data standards of findability, accessibility, interoperability, and reuse. And that data includes persistent identifiers such as that of ORCID for author identification, a Digital Object Identifier (DOI) for the article itself, and tags to the relevant grant funding or research institution.

The new federal guidelines seek public access but do not specify delivery models. We agree that openly accessible science can – and should – be delivered by more than one publishing model. We welcome competition if it spurs innovation and the amount of rigorous science accessible to all.

But in judging those delivery models, federal agencies must make a robust and transparent assessment to compare them for efficiency, scalability, and public value for money – guided by the objective of discoverability that underpins public access.

For example, public access known as “Green Open Access (OA)” (which includes depositing preprints of drafts, submitted or accepted manuscripts on preprint servers) clearly removes some barriers and does not create or perpetuate inequity. But the mechanisms for finding, reading, and sharing Green OA files vary widely, and provenance, e.g. the level of peer-review or endorsement of the scientific community, is not always clear. Substantial new funding will be required just to bring that variance down and lift standards for discoverability, with new investment in infrastructure for metadata enrichment. Those institutions unable to fund that investment are likely to face the continued cost pressure of paywall subscriptions that might only minimally ease search and discovery.

So, it is vital that the funding of public access is as efficient, scalable, and as good a value for money as possible, and in our view, Gold OA publishing is one of the most effective ways of securing that outcome. It offers a simple, transparent, and competitive way to unlock the benefits of fully accessible science.

We think it is possible to achieve the fullest possible access to our collective knowledge – for fairer outcomes in all parts of society – in a business model that is cost-effective, commercially sustainable, and underpinned by private sector innovation. We stand ready to support the NIH and its partners in the federal government. It is vital we back this effort for open science and meet the public appetite for accountability, transparency, and trust.

Full response

Our detailed responses to the NIH’s framing (in italics) are set out here.

1. How to best ensure equity in publication opportunities for NIH-supported investigators.

On public repositories, we believe the NIH Public Access Plan rightly encourages and prioritises the widest possible choices for researchers as they relate to publishing venue, as well as the principles of academic freedom. We think the Plan strikes the right balance by making PubMed Central (PMC) a convenient and compliant repository for research without privileging or mandating it.

On the fairness of the article processing charge (APC), it is worth noting this charge is not an inevitable component of Gold Open Access (OA) publishing. Indeed, we recognize that in some cases, it is not the preferred or most sustainable price structure for researchers, funders, libraries, and research institutions. And while we, like others in the publishing industry, think the APC model is a good one, we are not in principle wedded to it. We are continually in touch with institutional partners to find solutions that meet their needs.

For APCs to remain affordable, there must be fair competition on a level playing field between legacy publishers and pure open access publishers or other innovative platforms, and researchers should be rewarded to use publication funds responsibly. So called “transformative agreements” or Read&Publish agreements, where legacy publishers sell journals to libraries with subscription fees that bundle access to back-articles with coverage of APCs to publish in their journals, are in our view anticompetitive as they encourage researchers to publish in legacy titles regardless of the APC-level. Full OA publishers have

nothing to “transform” so they are not included in such agreements. Instead of enabling a true competition between pure OA publishers and legacy publishers, transformative agreements subsidise publication in legacy titles and contribute to a oligopolistic publishing ecosystem by ignoring the fact that researchers may disseminate their work with other publishers (including pure open access publishers) or platforms more cost-effectively.

Frameworks such as Plan P (planp.science) address the APC problem with creating a transparent market place for publication opportunities for researchers after they made their preprint available to the public, and also support a multipayer environment, where the APC is ultimately covered by both the institution and funders.

On the additional steps the NIH might take to ensure new inequities are not created, or existing ones reinforced, we believe the NIH should

- Implement policies that make sure that institutions and libraries offer equitable publication opportunities by creating, supporting, or mandating institutional open access funds that support cost-effective peer-review and publication in *all* accredited open access venues, outlawing transformative agreements without the presence of a generic institutional open access fund that supports open access publication in *any* accredited OA journal. “Accreditation” could use existing “white-lists” such as DOAJ or OASPA membership, or be the results of an institutional/federal procurement/RFI process to create an institutional list of “accredited” OA journals that receive a APC subsidy
- encourage researchers to publish in the Gold OA model – on the basis that the public funding of public access is efficient, scalable, and delivers value for money.
- Encourage researchers to make their publications available as preprints first
- Find mechanisms that support a multipayer model, where the costs APCs are shared between institutions and funders, and to make billing processes as frictionless as possible for researchers.

In our view, Gold OA publishing is one of the most effective ways of securing that outcome. It offers a simple, transparent, and competitive way to unlock the benefits of fully accessible science; and it enables researchers, agencies, universities, libraries, and repositories to fulfil both the NIH Public Access Policy and the OSTP guidance. Publishing in a Gold OA journal immediately facilitates the transfer of articles to a repository, with metadata in machine-readable formats. In this model, there are no embargoes and no superfluous or costly bundled services that are common in “hybrid” or “transformative” subscription options offered by legacy commercial publishers.

On public value for money, new federal guidelines seek public access but do not specify delivery models. We agree that openly accessible science can – and should – be delivered by more than one publishing model. We welcome competition if it spurs innovation and the amount of rigorous science accessible to all.

But in judging those delivery models, federal agencies must make a robust and transparent assessment and comparison for efficiency, scalability, and public value for money – guided by the objective of discoverability that underpins public access.

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2. Steps for improving equity in access and accessibility of publications.

On the 12-month embargo, we strongly welcome the NIH’s decision to end it on publications. We believe that so-called Transformative Agreements (TAs) were worthwhile in their conception as a means of smoothing the transition to fully open access science, but in their execution have become a blunt instrument.

TAs lack transparency, have complex bundles of services making it all but impossible to judge value for money, and come with no contractual commitment to a move to full open access (Green, Gold, or otherwise) within a binding deadline.

Most of these agreements are large scale “read and publish” or hybrid deals. Publishers will often allow authors to appear in their hybrid journals without being charged, if their institutions pay, while at the same time they maintain the amount of science they publish behind paywalls.

We believe TAs help prop up the market dominance of legacy publishers by controlling the pace of transition to fully open access science. The worldwide scientific publishing oligopoly is a market estimated to be around US $27 billion.[1] The five largest paywall publishing houses[2] have captured more than half of it.[3]

On the basis the NIH seeks equity in access as well as transparency in costs, backed by financial sustainability, we believe Gold OA publishers can deliver.

On automated text processing, assistive devices, and other inclusionary measures, we fully support the NIH’s position. We consistently invest in measures that improve the accessibility of our publications. Many such requirements were mandated by the Coalition S initiative, which this group fully supports, and which saw wide-ranging and progressive open access policies adopted by funders in the US, in the United Kingdom and across Europe.

We firmly back public policies that promote equity of opportunity, the ability both to read and publish research, and the scientific rigor, academic freedom, institutional values, and personal and professional recognition that underpin success.

We are committed to increasing research access, knowledge resources, and educational opportunities for all, especially for those groups, nations, and individuals who are historically marginalized, underrepresented, or disadvantaged.

On institutional success, we work hard to build communities and tackle the inadequacies and inequities often characterizing research dissemination. The shift toward open access represents an opportunity to expand access to knowledge in a significant way across academic institutions of all stripes, as well as small businesses and the public.

We would urge the NIH to draw on its influence to see that library, research, and educational institutions commit to investing in open access so that all parties can source sufficient funding for publishing. Several equitable open publishing models are readily available. It cannot be right if colleges and universities are encouraged to maintain robust publications budgets for subscriptions and then asked to make cuts to open access. Many institutions initially supported open access with the hope that it will reduce library costs for subscriptions, and signed statements like the Compact for Open Access Equity (COPE, http://www.oacompact.org/), which vowed that there will always be institutional support to help with APCs; unfortunately, in many cases such institutional funds are no longer available as libraries make deals with traditional publishers that fund only their APCs (https://scholarworks.duke.edu/open-access/cope/).

We believe there is enough funding in the system to make the transition to open access complete. But that funding can only be unlocked with public sector, policymaker, and buyer leadership, on the basis we look beyond legacy publishing models that have been responsible for a decades-long cost explosion in scholarly publishing.[4] With the right policies and incentives, agencies can help drive the value of taxpayer-funded investment and spur innovation.

3. Methods for monitoring evolving costs and impacts on affected communities.

On financial costs, we welcome the NIH's interest in the commercial drivers of scholarly publishing, particularly in matters of access or equity.

Since our inception as a born-digital publisher, we have sought to reduce or remove financial and operational burdens facing researchers. The governing principle of all scholarly publishing should be that the researchers have the most freedom possible to focus on their research. And so, all publishers compete to lower administrative and process-based burdens.

While the dissemination of research requires a complex ecosystem, we believe a wide-scale shift to open access would allow libraries and research institutions to free substantial resources now tied up in (paywall) subscriptions, and to apply those resources to researchers' publishing costs.

A strong signal or directive from the NIH that research institutions should commit these freed-up funds – as well as grant money ringfenced for publication – to the widespread and

immediate sharing of research would have a profound and positive impact on the drive to fully open access science.

On the perceived relative fairness of pricing regimes, and as we say in response to Question 1, it is worth noting the APC is not an inevitable component of Gold OA publishing. While we think the APC model is a good one – not least because it brings greater costs transparency for monitoring purposes – we are not in principle wedded to it. We are continually in touch with institutional partners to find solutions that meet their needs. We are seeking to shift the funding paradigm to help authors cover the fair and actual cost of publishing, to make scientific knowledge accessible to the widest possible audience.

Within an APC framework, we have expanded our portfolio of institutional models to meet the tailored needs of our customers (with, for example, institutional partnerships for research-intensive "publish" organizations as well as high consumption "read" institutions and societies). Our success indicates a range of pricing regimes can meet the needs of a range of customers and institutions.

The publishing industry at large is experimenting with pricing regimes and introducing new ones in its drive to innovate. Though the nomenclature varies – advance annual payment, fixed fee, flat fee, multi-payer, Subscribe 2 Open, waivers – all of these seek to offer more cost-efficient and sustainable alternatives to libraries' subscription expenditure.

4. Early input on considerations to increase findability and transparency of research.

On data sharing, we fully back the NIH's effort through its Public Access Plan to spur a better and more consistent use of PIDs and metadata. In driving this effort, the NIH is providing critical leadership in the scholarly publishing ecosystem.

Moreover, we welcome the NIH's focus on the findability and transparency of research. Open data drives scientific and technological innovation and spurs collaboration; is critical to driving efficiency and scaling innovation; and in uniform standards can be verified, reproduced, and built upon.

If data is transparent and open to scrutiny and evaluation, it follows that trust and confidence in science are more likely to be sustainable. The infrastructure for open data is readily available and an increasingly frequent resource; and many large-scale repositories already exist to make data open. Examples include Figshare, a commercial, field-agnostic repository; field-specific, non-profit databases like the society-supported FlowRepository for cytometry data and the commercial Protein Data Bank; and federally backed databases like NIH's data repositories.

On data repositories, substantial funding will be required for operation and upgrades. And in the absence of funding committed to scaling up PMC, wewould back a federated approach that focuses on shared standards and access across multiple repositories. By way of illustration, we deposit the full text or metadata of our 230-plus journals in more than 20 repositories when we publish articles.

As a group of fully OA publishers, together we have made thousands of peer-reviewed articles available online immediately, without embargo. Our starting point – and end point – is ease of discovery.

In simple terms, an article that cannot be found, cannot be shared, and cannot be cited also cannot spur vital collaboration and breakthrough. Publishing in a Gold OA journal unlocks discoverability. The articles and underlying data are transferred to a repository such as PubMed Central or stored in commercial or other non-profit databases.

Moreover, the metadata from Gold OA journals come in XML files and other machine-readable formats to meet FAIR data standards of findability, accessibility, interoperability, and reuse. The metadata includes persistent identifiers such as that of ORCID for author identification, a Digital Object Identifier (DOI) for the article itself, and tags to the relevant grant funding or research institution. And compliance with JATS DTD for XML and other PMC-recommended tagging enables an even more efficient search and discovery experience.

Open science is all about transparency and the quality of science is expected to increase if transparency increases, e.g. by publishing protocols. While it is common to publish and register clinical trials, NIH could do more to make other forms of research more transparent. In terms of identifying protocols or grant proposals, some signatories of this letter have pioneered the use of a new persistent identifiers (PID) called IRRID (International Registered Report Identifier, https://irridregistry.org/), which uses the DOI system to link protocols and grant proposals (RR1) to results papers (RR2). If a protocol or grant proposal is published with a DOI, the IRRID in the results paper links back to the protocol. Together, RR1 and RR2 form “registered reports”, which is the idea that scientists should publish the protocol or proposal of their work first, and then the results paper, which should be published regardless of whether the findings are negative or positive. NIH as funding agency could encourage protocol and proposal publication by

- making peer-review reports from NIH review committees openly accessible under a Creative Commons licence if the principal investigator and reviewers agree
- encouraging NIH-funded researchers to formally publish their protocols and grant proposal if they are successful so they receive a DOI and a IRRID
- encoruage or mandate to cite the protocol or grant proposal using a IRRID in the abstract of any results paper

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We stand ready to support the NIH and its partners in the federal government. It is vital we back this effort for open science and meet the public appetite for accountability, transparency, and trust.

Publishers in the Fully OA group submitting this response include:

1. Frontiers (stephan.kuster@frontiersin.org)
2. Ubiquity Press (brian.hole@ubiquitypress.com)
3. JMIR Publications, 130 Queens Quay E, Ste. 1100, Toronto M5A 0P6, Canada, support@jmir.org